

State of Montana  
Department of Environmental Quality  
Helena, Montana 59620

**AIR QUALITY OPERATING PERMIT NUMBER OP#3021-01**

Administrative Amendment Received: **February 21, 2003**  
Application Deemed Administratively Complete: **February 21, 2003**  
Application Deemed Technically Complete: **February 27, 2003**  
AFS Number: 030-063-0022A

Date of Decision: **April 17, 2003**  
Effective Date: **May 20, 2003**  
Expiration Date: **March 22, 2006**

In accordance with the Montana Code Annotated (MCA) sections 75-2-217 and 218, and the Administrative Rules of Montana (ARM) Title 17, Chapter 8, Subchapter 12, Operating Permit Program, ARM 17.8.1201, *et seq.*,

ConocoPhillips Company  
Missoula Bulk Terminal  
Section 9, Township 13 North, Range 19 West  
Missoula County, Montana  
PO Box 30198  
Billings, Montana 59107

hereinafter, referred to as ConocoPhillips is authorized to operate a stationary source of air contaminants consisting of the emission units described in this permit. Until this permit expires or is modified or revoked, ConocoPhillips is allowed to discharge air pollutants in accordance with the conditions of this permit. All conditions in this permit are federally and state enforceable unless otherwise specified. Requirements, which are state only enforceable, are identified as such in the permit. A copy of this permit must be kept on site at the above named facility.

Issued by the Department of Environmental Quality

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Permit Issuance and Appeal Process:** In accordance with ARM 17.8.1210(j), the Department of Environmental Quality's (Department) decision regarding issuance of an operating permit is not effective until 30 days have elapsed from the date of the decision, issued April 17, 2003. The decision may be appealed to the Board of Environmental Review (Board) by filing a request for a hearing within 30 days after the date of decision. If no appeal is filed, the Department will send notification and a final permit cover page to be attached to this document stating that the permit is final. Questions regarding the final issuance date and status of appeals should be directed to the Department at (406) 444-3490.

**Montana Air Quality Operating Permit  
Department of Environmental Quality**

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Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit have the meaning assigned to them in the referenced regulations.

## I. GENERAL INFORMATION

The following general information is provided pursuant to ARM 17.8.1210(1).

**Company Name:** ConocoPhillips Missoula Bulk Terminal

**Mailing Address:** P.O. Box 30198

**City:** Billings

**State:** Montana

**Zip:** 59107-0198

**Plant Location:** Section 9, Township 13 North, Range 19 West, Missoula County  
3330 and 3350 Raser Drive, Missoula, Montana

**Responsible Official:** Tom F. Wanzeck      Phone: (303) 649-4001

**Facility Contact Person:** Allen C. Eggen      Phone: (406) 255-2626

**Primary SIC Code:** 5171

**Nature of Business:** Petroleum Bulk Terminal

**Description of Process:** The Missoula Bulk Terminal stores and transfers petroleum products (gasoline and distillate) via tank trucks and railcars. Flares are used as control equipment for the vapor collection system on the loading racks.

## II SUMMARY OF EMISSION UNITS

The emission units regulated by this permit are the following (ARM 17.8.1211):

Emission Unit ID	Description	Pollution Control Device/Practice
EU001	Loading Racks I and III	Vapor Collection with Flares
EU002	Flares	The flares are the control equipment
EU003	T-50 – 1,264,536-gallon gasoline tank	Internal floating roof
EU004	T-51 – 845,082-gallon gasoline tank	Internal floating roof
EU005	T-52 – 845,208-gallon transmix tank	Internal floating roof
EU006	T-53 – 854,040-gallon EtOH/gas tank	Internal floating roof
EU007	T-54 – 1,260,000-gallon gasoline tank	Internal floating roof
EU008	T-55 – 868,938-gallon jet fuel #1 tank	Fixed roof
EU009	T-56 – 2,677,290-gallon diesel tank	Internal floating roof
EU010	T-58 – 3,827,250-gallon gasoline tank	Internal floating roof
EU011	T-401 – 614,000-gallon mogas tank	Internal floating roof
EU012	T-402 – 1,260,000-gallon mogas tank	Internal floating roof
EU013	T-404 – 850,000-gallondiesel tank	Fixed roof
EU014	T-405 – 650,000-gallon jet fuel tank	Fixed roof
EU015	T-406 – 650,000-gallon mogas tank	Internal floating roof
EU017	Additive tanks (8)	Fixed roof
EU018	Fugitive emissions from valves, flanges, pump seals, and open-ended lines	None
EU019	Fugitive emissions – Truck Traffic	Water and/or chemical dust suppressant

Note:

EU017 (Additive tanks (8)) include three additive tanks (T-408, T-409, and T-A-13) that are currently inactive and will not be returned to service.

### III PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emission units located at the facility (ARM 17.8.1211,1212, and 1213).

#### A. FACILITY-WIDE

Conditions	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.1.	ARM 17.8.304(1)	Visible Air Contaminants	Opacity	40%
A.2.	ARM 17.8.304(2)	Visible Air Contaminants	Opacity	20%
A.3.	ARM 17.8.308(1)	Particulate Matter, Airborne	Fugitive Opacity	20%
A.4.	ARM 17.8.308(2)	Particulate Matter, Airborne	Reasonable Precautions	-----
A.5.	ARM 17.8.308	Particulate Matter, Airborne	Reasonable Precaution, Construction	20%
A.6.	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E = 0.882 * H^{-0.1664}$ or $E = 1.026 * H^{-0.233}$
A.7.	ARM 17.8.310	Particulate Matter, Industrial Processes	Particulate Matter	$E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$
A.8.	ARM 17.8.322(4)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (liquid or solid fuels)	1 lb/MMBtu fired
A.9.	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.10.	ARM 17.8.324(3)	Hydrocarbon Emissions, Petroleum Products	Gasoline Storage Tanks	-----
A.11.	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	65,000-Gallon Capacity	-----
A.12.	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	Oil-effluent Water Separator	-----
A.13.	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-----
A.14.	ARM 17.8.1207	Reporting Requirements	Annual Certification	-----

#### Conditions

- A.1. Pursuant to ARM 17.8.304(1), ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.
- A.2. Pursuant to ARM 17.8.304(2), ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.
- A.3. Pursuant to ARM 17.8.308(1), ConocoPhillips shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.
- A.4. Pursuant to ARM 17.8.308(2), ConocoPhillips shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter unless otherwise specified by rule or in this permit.
- A.5. Pursuant to ARM 17.8.308, ConocoPhillips shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes unless otherwise specified by rule or in this permit.

- A.6. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, ConocoPhillips shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968):  $E = 0.882 * H^{-0.1664}$   
For new fuel burning equipment (installed on or after November 23, 1968):  $E = 1.026 * H^{-0.233}$

Where H is the heat input capacity in million Btu (MMBtu) per hour and E is the maximum allowable particulate emission rate in pounds per MMBtu.

- A.7. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, ConocoPhillips shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using the following equations:

For process weight rates up to 30 tons per hour:  $E = 4.10 * P^{0.67}$   
For process weight rates in excess of 30 tons per hour:  $E = 55.0 * P^{0.11} - 40$

Where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour.

- A.8. Pursuant to ARM 17.8.322(4), ConocoPhillips shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million Btu fired, unless otherwise specified by rule or in this permit.
- A.9. Pursuant to ARM 17.8.322(5), ConocoPhillips shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit.
- A.10. Pursuant to ARM 17.8.324(3), ConocoPhillips shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.
- A.11. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, ConocoPhillips shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000-gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.
- A.12. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, ConocoPhillips shall not use any compartment of any single or multiple compartment oil-effluent water separator which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.

- A.13. On or before January 31 and July 31 of each year, ConocoPhillips shall submit to the Department the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emissions unit. For the reports due by January 31 of each year, ConocoPhillips may submit a single report, provided that it contains all the information required by Section V.B & V.D. Per ARM 17.8.1207,

*any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semi-annual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”*

- A.14. By January 31 of each year, ConocoPhillips shall submit to the Department the compliance certification report required by Section V.B. The annual certification report required by Section V.B must include a statement of compliance based on the information available, which identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

*any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”*

**B. EU001: LOADING RACKS I AND III**

Includes Truck Loading Rack- Rack I and Railcar Loading Rack- Rack III

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration		Reporting Requirement
			Method	Frequency	
B.1., B.9., B.17.	Tank Trucks and Railcars	Submerged fill and dedicated normal service and/or switch loaded service.	Verify	Ongoing	Semi-annual
B.2., B.3., B.4., B.14., B.17.	Rack I & Rack III	756-million gallons of gasoline, 1,100-million gallons of distillate, 50-million gallons of jet fuel	Log	Monthly	
B.5., B.10., B.17.	Opacity	20%	Submerged fill and dedicated normal service and/or switch loaded service.	Ongoing	
B.6., B.13., B.16., B.17.	Tank Trucks and Railcars	Vapor-tight tank trucks and railcars.	Method 27	Annual	
B.7., B.11., B.12., B.15., B.17.	Vapor Collection System	Install, operate and maintain	Leak Inspections	Monthly	
B.8., B.17.	Tank Trucks and Railcars	Compatible with the vapor collection system.	Verify	Ongoing	Annual

## Conditions

- B.1. Loading of tank trucks and railcars shall be restricted to the use of submerged fill and dedicated normal service and/or switch loaded service (ARM 17.8.749).
- B.2. ConocoPhillips shall be limited to a maximum total of 756,000,000 gallons of gasoline throughput for loadout operations on Rack I and Rack III combined during any rolling 12-month period (ARM 17.8.749).
- B.3. ConocoPhillips shall be limited to a maximum of 1,100,000,000 gallons of distillate product throughput for the loadout operations on Rack I and Rack III during any rolling 12-month period (ARM 17.8.749).
- B.4. ConocoPhillips shall be limited to a maximum of 50,000,000 gallons of jet fuel throughput for the loadout operations on Rack I and Rack III during any rolling 12-month period (ARM 17.8.749).
- B.5. ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- B.6. Loading of liquid product into the tank trucks and railcars shall be limited to vapor-tight tank trucks and railcars using the following procedures (ARM 17.8.340 and 40 CFR 60, Subpart XX):
  - a. ConocoPhillips shall require the tank truck and railcar identification number to be recorded as each gasoline tank truck and railcar is loaded at the terminal; and
  - b. ConocoPhillips shall take the necessary steps to ensure that any non-vapor-tight gasoline tank truck and railcar will not be reloaded at the loading racks until vapor tightness documentation for that truck and/or railcar is obtained.
- B.7. ConocoPhillips shall install, operate, and maintain the vapor collection system to collect VOC and Hazardous Air Pollutant (HAP) emissions from the liquid product loaded at Rack I and Rack III (ARM 17.8.340 and 40 CFR 60, Subpart XX).
- B.8. ConocoPhillips shall ensure that loading of gasoline and distillate tank trucks and gasoline railcars at the loading racks are made only into tank trucks and railcars compatible with the vapor collection system (ARM 17.8.340 and 40 CFR 60, Subpart XX).

## Compliance Demonstration

- B.9. ConocoPhillips shall verify that the submerged fill and dedicated normal service and/or switch loaded service is continually used when loading tank trucks and/or railcars (ARM 17.8.1213).
- B.10. Compliance with opacity may be satisfied with the ongoing use of the submerged fill and dedicated normal service and/or switch load service (ARM 17.8.1213).
- B.11. Each calendar month, the vapor collection systems and the loading racks shall be inspected for total organic compound leaks, liquid or vapor, during product transfer operations. For purposes of this requirement, detection methods incorporating sight, sound, and smell are acceptable. Every detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected (ARM 17.8.105, 17.8.749 and 40 CFR 60, Subpart XX) (ARM 17.8.1213).

- B.12. ConocoPhillips may discontinue monthly inspections when a loading rack(s) is not in operation for an entire calendar month or longer. The loading racks must be purged to remove all petroleum products from the loading racks. ConocoPhillips must provide the following to the Department (ARM 17.8.1213):
- a. Written notification within 15 days after shutdown of a loading rack that will not be operating for a calendar month or longer; and
  - b. Written notification within 15 days after start-up of a loading rack that has not been in operation and the previous month's inspections were not conducted.
- B.13. ConocoPhillips shall require testing on the tank trucks on an annual basis. Testing of the railcars shall be staggered, with 1/3 of the railcars tested in year 2000, another 1/3 tested in year 2001, and the remaining 1/3 tested in year 2002. This testing schedule will repeat starting in year 2003. Documentation shall be updated, as testing results are available to reflect current test results as determined by Method 27 (ARM 17.8.1213).

### **Recordkeeping**

- B.14. ConocoPhillips shall record in a log, by month, the throughput of gasoline, distillate, and jet fuel products from the tank truck and railcar loadout operations. By the 25<sup>th</sup> day of each month, ConocoPhillips shall total the amount of throughput during the previous 12 months to verify compliance with Section III.B.2., III.B.3., and III.B.4. The log shall contain the date, calculation of throughput, and the initials of the individual making the log entry (ARM 17.8.1212).
- B.15. A record of each monthly leak inspection required by Section III.B.11. shall be kept on file at the bulk terminal. Inspection records shall include, at a minimum, the following information:
- a. Date of inspection;
  - b. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);
  - c. Leak determination method;
  - d. Corrective action (date each leak repaired and reason for any repair interval in excess of 15 calendar days); and
  - e. Inspector's name and signature.

### **Reporting**

- B.16. ConocoPhillips shall submit all source test reports in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.1212).
- B.17. The annual compliance certification report required by Section V.B. must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

The semi-annual reporting shall provide (ARM 17.8.1212):

- a. Verification that loading of tank trucks and railcars was done using submerged fill and dedicated normal service and/or switch loaded service;
- b. Verification that monthly log of throughput was maintained and compliance was demonstrated with Sections III.B.2., III.B.3., and III.B.4.;

- c. Summary of the monthly leak checks and all repairs made;
- d. Verification that proper procedures were followed and the vapor collection system was used when loading vapor-tight tank trucks and railcars;
- e. A summary of results from any source testing that was performed during the period; and
- f. Verification that the vapor collection system used was compatible to loading tank trucks and railcars.

**C. EU002: FLARES**

Includes Flares (Open Flame Flare for Rack I and Enclosed Flare for Rack III)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
C.1., C.6., C.13., C.16.	Vapor collection system	Route to vapor control system	Log	Monthly and during any maintenance	Semi-annual
C.2., C.6., C.13., C.16.	VOC and HAP emissions	install, operate, and maintain vapor control system	Log	Monthly and during any maintenance	
C.3., C.7., C.14., C.15., C.16.	Opacity	10%	Method 22	As required by the Department	
C.3., C.8., C.14., C.15., C.16.	Particulate Matter	0.10 gr/dscf	Method 5	As required by the Department	
C.3., C.9., C.10., C.14., C.15., C.16.	VOC	Rack I (Tank trucks): 35.0 mg/L and Rack III (Railcars): 10.0 mg/L	Method 21&22 Method 25A/25B	Every 4 years	
C.3., C.11., C.14., C.15., C.16.	CO	10.0 mg/L	Method 10	As required by the Department	
C.3, C.11, C.14, C.15, C.16	NO <sub>x</sub>	4.0 mg/L	Method 7	As required by the Department	
C.4., C.5., C.12., C.13., C.16.	Railcar	Operated to prevent gauge pressure from exceeding 4,500 Pa (450 mm H <sub>2</sub> O). No pressure-vacuum vent shall open at a system pressure less than 4,500 Pa (450 mm H <sub>2</sub> O).	Log and In accordance with Appendix I	During each loading	

**Conditions**

- C.1. ConocoPhillips shall route all emissions from the vapor collection system to a vapor control system (ARM 17.8.749).
- C.2. ConocoPhillips shall install, operate, and maintain the vapor control system to control VOC and HAP emissions as described in Section III.C.3. (ARM 17.8.749 and 40 CFR 60, Subpart XX).
- C.3. ConocoPhillips shall not cause or authorize to be discharged into the atmosphere from any flare (ARM 17.8.316):
  - a. Any visible emissions that exhibit an opacity of 10% or greater;
  - b. Any particulate emissions in excess of 0.10 gr/dscf corrected to 12% CO<sub>2</sub>;
  - c. Total Volatile Organic Compound (VOC) emissions due to loading liquid product into gasoline tank truck exceeding 35.0 milligrams per liter (mg/L) of gasoline loaded (40 CFR 60, Subpart XX);
  - d. VOC emissions due to loading liquid product into gasoline railcars exceeding 10.0 milligrams per liter (mg/L) of gasoline loaded;

- e. Total Carbon Monoxide (CO) emissions due to loading liquid product into gasoline railcars exceeding 10.0 mg/L of gasoline loaded; and
  - f. Total Nitrogen Oxide (NO<sub>x</sub>) emissions due to loading liquid product into gasoline railcars exceeding 4.0 mg/L of gasoline loaded.
- C.4. The vapor collection system and liquid loading equipment shall be designed and operated to prevent gauge pressure in the gasoline railcar from exceeding 4,500 Pascal (Pa) (450 millimeters (mm) of water) during product loading. This level shall not be exceeded when measured by the procedures specified in the test methods and procedures in Appendix I of this permit (ARM 17.8.340 and Subpart XX).
- C.5. No pressure-vacuum vent in the vapor collection system shall begin to open at a system pressure less than 4,500 Pa (450 mm of water) (ARM 17.8.340 and Subpart XX).

### **Compliance Demonstration**

- C.6. ConocoPhillips, each calendar month, shall inspect the vapor control system. Inspection should include detection methods incorporating sight, sound, or smell. The inspection results shall be recorded in a log maintained on site. The log shall include (ARM 17.8.1213):
- a. Date of inspection;
  - b. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);
  - c. Leak determination method;
  - d. Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and
  - e. Inspector's name and signature.
- C.7. As required by the Department, ConocoPhillips shall perform a Method 22 test or other Department approved test method in accordance with the Montana Source Test Protocol and Procedures Manual, to monitor compliance with the opacity limitation (ARM 17.8.1213).
- C.8. As required by the Department, ConocoPhillips shall perform a Method 5 test or other Department approved test method in accordance with the Montana Source Test Protocol and Procedures Manual, to monitor compliance with the particulate matter limit (ARM 17.8.1213).
- C.9. The flare controlling Rack I shall be tested using Method 21 and 22 in lieu of other testing required by NSPS Subpart XX. Compliance shall be demonstrated with the emission limitations contained in Section III.C.3.(a) by January 31, 2000, and every 4 years thereafter, or another Department approved test method (ARM 17.8.105).
- C.10. The enclosed flare controlling Rack III shall be tested for total organic compounds, and compliance demonstrated with the emission limitation in Section III.C.3.(d) by January 31, 2004, and every 4 years thereafter, using test methods outlined in Appendix I or other Department approved test methods (ARM 17.8.105).
- C.11. As required by the Department, ConocoPhillips shall perform a Method 10 (CO) and Method 7 (NO<sub>x</sub>), or other Department approved test methods, in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.1213).

C.12. ConocoPhillips shall maintain a log of the calculated gauge pressure during each loading of a railcar as required by Sections III.C.4. and III.C.5. In addition to the calculated pressure, the log shall contain the date, time, and logger's signature. Calculation shall be computed in accordance with Appendix I (ARM 17.8.1213).

**Recordkeeping**

C.13. Recordkeeping requirements shall consist of maintaining the logs for both inspections and calculated gauge pressure during each loading. The logs shall be submitted to the Department upon request (ARM 17.8.1212).

C.14. All source test recordkeeping shall be performed in accordance with the test method used and shall be maintained on site (ARM 17.8.1212).

**Reporting**

C.15. ConocoPhillips shall submit all source test reports in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.1212).

C.16. The annual compliance certification report required by Section V.B. must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

The semi-annual reporting shall provide (ARM 17.8.1212):

- a. Verification that logging was performed;
- b. A summary of all logging performed;
- c. A summary of any corrective action taken; and
- d. A summary of results of any source testing that was performed during the period.

**D. EU003, EU004, EU005, EU006, EU007, EU008, EU009, EU010, EU011, EU012, EU013 EU014, and, EU017: PRODUCT STORAGE TANKS**

Includes EU003-T50, EU004-T51, EU005-T52, EU006-T53, EU007-T54, EU008-T55, EU009-T56, EU010-T58, EU011-T401, EU012-T402, EU013-T404, EU014-T405, EU015-T406, and EU017-Additive tanks (6)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Frequency	Reporting Requirements
D.1., D.5., D.8., D.9., D.11., D.12., D.13.	Petroleum Liquid with vapor pressure greater than 2.5 lb/psia	Internal floating roof, and maintain tank covers, lids, seals and vents	Visual Inspections	Yearly and when tank is emptied	Semi-annual
D.2., D.5., D.9., D.11., D.12., D.13.	Tank 56	40 CFR 60, Subpart K			
D.3., D.6., D.7., D.10., D.12., D.13.	Tank 54 and 58	40 CFR 60, Subpart Kb			
D.4., D.13.	Opacity	20%	Normal Operations	No Method	

## Conditions

- D.1. ConocoPhillips shall not store petroleum liquid with a maximum true vapor pressure greater than 2.5 pounds per square inch atmosphere (psia) in the permitted petroleum liquid storage tanks unless (ARM 17.8.749):
- a. The tank is equipped with an internal floating roof equipped with a closure seal or seals to close the space between the roof edge and the tank wall.
  - b. The tank is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or material.
  - c. All openings, except stub drains, are equipped with covers, lids, or seals such that:
    - i. The cover, lid, or seal is in the closed position at all times, except when in actual use.
    - ii. The automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports.
    - iii. The rim vents are set to open when the roof is not floating off the roof leg supports, or at the manufacture's recommended setting.
- D.2. ConocoPhillips shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in ARM17.8.340 and 40 CFR 60, Subpart K for Tank 56.
- D.3. ConocoPhillips shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in ARM 17.8.340 and 40 CFR, Subpart Kb for Tanks 54 and 58.
- D.4. ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any tank that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

## Compliance Demonstration

- D.5. For tanks equipped with a single and double seal system, ConocoPhillips shall (ARM 17.8.1213):
- a. Visually inspect the internal floating roof, and its closure seal or seals through roof hatches at least once every 12 months; and
  - b. Perform a complete inspection of any cover and single seal whenever the tank is emptied for non-operational reasons or at least every 10 years, whichever is more frequent.
- D.6. ConocoPhillips shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals on tanks 54 and 58 each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seals have holes, tears, or other openings in the seals or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10% open area, ConocoPhillips shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling each tank. Inspections conducted shall occur at intervals no greater than 10 years (ARM 17.8.1213).

- D.7. Every 12 months after initial fill, ConocoPhillips shall visually inspect the internal floating roof, the primary seal and the secondary seal through manholes and roof hatches on the fixed roof of tanks 54 and 58. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, ConocoPhillips shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspection cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions to be taken that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible (ARM 17.8.1213).

### **Recordkeeping**

- D.8. ConocoPhillips shall record any change in products stored in the permitted storage tanks. The record shall include the date, time, type of product to be removed from the tank, type of product to be stored in the tank, vapor pressure of stored product, and initials of plant personnel (supervisor) involved in the changing of product in the tank (ARM 17.8.1212).
- D.9. For sources containing a petroleum liquid with a true vapor pressure greater than 2.5 psia, the following records shall be maintained on site for a minimum of 5 years and shall be made available to the Department upon request (ARM 17.8.1212).
- a. The average monthly storage temperature;
  - b. The type of liquid stored; and
  - c. The maximum true vapor pressure for any petroleum liquid with a true vapor pressure greater than 2.5 psia.
- D.10. ConocoPhillips shall maintain on site a log of inspections performed on the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period in tanks 54 and 58 as instructed by Section III.D.6. and III.D.7. (ARM 17.8.1212).

### **Reporting**

- D.11. ConocoPhillips shall submit records of inspection required in Section III.D.5.(a) to the Department within 30 days of the date of inspection if a gap is detected (ARM 17.8.1212).
- D.12. ConocoPhillips shall notify the Department of the date of the inspection at least 30 days prior to the refilling of each storage vessel for which an inspection is required by Section III.D.5.(b). (ARM 17.8.1212).
- D.13. The annual compliance certification report required by Section V.B. must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

The semi-annual reporting shall provide (ARM 17.8.1212):

- a. A summary of all inspection logs as required for all tanks;
- b. A summary of any changes in products stored in the permitted storage tanks and verification that record of change was performed;
- c. Verification of compliance with requirements of 40 CFR 60, Subparts K and Kb; and
- d. Verification that opacity did not exceed 20% on any of the tanks.

**E. FUGITIVE EMISSION SOURCES**

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
E.1., E.5., E.9., E.10.	All valves	High quality	Inspections	Monthly	Semi-annual
E.2., E.5., E.9., E.10.	All open-ended valves				
E.3., E.6., E.7., E.8., E.9., E.10.	All pumps	Mechanical seal system	Inspections	Quarterly	
E.4., E.10.	Opacity	20%	Normal Operations	No Method	

**Conditions**

- E.1. ConocoPhillips shall ensure that all valves used are high quality valves containing high quality packing (ARM 17.8.749).
- E.2. ConocoPhillips shall ensure that all open-ended valves are of the same quality as the valves described above. Any open-ended line shall be sealed with a valve (ARM 17.8.749).
- E.3. ConocoPhillips shall ensure that all pumps used in gasoline service shall be equipped with either a single or double mechanical seal system (ARM 17.8.749).
- E.4. ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any tank that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

**Compliance Demonstration**

- E.5. Each calendar month, all valves, flanges, pump seals, and open-ended lines shall be inspected for total organic compound leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.1213).
- E.6. Each calendar quarter, all pump seals shall be instrument tested for total organic compounds, liquid, or vapor leaks. When an instrument reading of 10,000 ppm, or greater is measured, or if there are indications of liquid dripping from the equipment, it shall be determined that a leak has been detected (ARM 17.8.1213).
- E.7. ConocoPhillips shall (ARM 17.8.1213):
  - a. Make a first attempt at repair for any leak not later than 5 calendar days after the leak is detected; and
  - b. Repair any leak as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section III.E.7 below.
- E.8. Delay of repair of equipment for which a leak has been detected will be allowed if repair is technically infeasible without a source shutdown. Such equipment shall be repaired before the end of the first source shutdown after detection of the leak (ARM 17.8.1213).

## **Recordkeeping**

E.9. ConocoPhillips shall maintain on site a log of all inspections performed. The log shall contain date, time, inspector's initials, results of inspections and any corrective action taken (ARM 17.8.1212).

## **Reporting**

E.10. The annual compliance certification report required by Section V.B. must contain a certification statement for the above applicable requirements. The semi-annual reporting shall provide (ARM 17.8.1212):

- a. A summary of all inspections performed during the period;
- b. Verification of compliance with requirements of Sections III.E.1., III.E.2., and III.E.3.; and
- c. Verification of compliance with 20% opacity limit.

**F. FUGITIVE EMISSION – TRUCK TRAFFIC**

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
F.1., F.3., F.5., F.7.,	Particulate Matter	Reasonable Precautions	Water or chemical dust suppressant	As necessary	Semi-annual
F.2., F.4., F.6., F.7.	Opacity	20%	Method 9	As required by the Department	

**Conditions**

- F.1. ConocoPhillips shall not cause or authorize emissions to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
- F.2. ConocoPhillips shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308(1)).

**Compliance Demonstration**

- F.3. ConocoPhillips shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precaution limitation (ARM 17.8.749).
- F.4. As required by the Department, ConocoPhillips shall perform a Method 9 opacity test to monitor compliance with Section III.F.2. (ARM 17.8.1213).

**Recordkeeping**

- F.5. ConocoPhillips shall record in a log anytime water and/or chemical dust suppressant is applied to maintain compliance with the reasonable precaution limitation. This log shall be maintained onsite and submitted to the Department upon request (ARM 17.8.1212).
- F.6. All recordkeeping performed in association with source testing shall be done in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.1212).

**Reporting**

- F.7. The annual compliance certification report required by Section V.B. must contain a certification statement for the above applicable requirements. The semi-annual reporting shall provide a summary of log entries made and a summary of any source testing results that may have occurred during the period (ARM 17.8.1212).

## IV NON-APPLICABLE REQUIREMENTS

ConocoPhillips did not request a shield from any of the Air Quality Administrative Rules of Montana (ARM); however, Federal Regulations identified as not applicable to the facility are listed below (ARM 17.8.1214). The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

### A. FACILITY-WIDE

The following table contains non-applicable requirements, which are administrated by the Air and Waste Management Bureau of the Department of Environmental Quality.

Rule Citation	Reason
ARM 17.8.340 ARM 17.8.610	These requirements are not applicable because the facility is not in this source category.
40 CFR 60, Subparts C, Ca, Cb, Cc 40 CFR 60, Subparts D, Da, Db, Dc 40 CFR 60, Subparts E-J 40 CFR 60, Subparts L-X 40 CFR 60, Subparts Z 40 CFR 60, Subparts AA-EE 40 CFR 60, Subparts GG-HH 40 CFR 60, Subparts KK-NN 40 CFR 60, Subparts PP-WW 40 CFR 60, Subparts AAA-DDD 40 CFR 60, Subparts FFF-LLL 40 CFR 60, Subparts NNN-QQQ 40 CFR 60, Subparts RRR-WWW 40 CFR 61, Subparts B-F 40 CFR 61, Subparts H-L 40 CFR 61, Subparts N-R 40 CFR 61, Subparts T 40 CFR 61, Subparts V-W 40 CFR 61, Subparts Y 40 CFR 61, Subparts BB 40 CFR 61, Subparts FF 40 CFR 63, Subparts B-I 40 CFR 63, Subparts L-O 40 CFR 63, Subparts Q-U 40 CFR 63, Subparts W-Y 40 CFR 63, Subparts CC-EE 40 CFR 63, Subpart GG 40 CFR 63, Subpart II 40 CFR 63, Subparts JJ-LL 40 CFR 63, Subparts OO-RR 40 CFR 63, Subpart VV 40 CFR 63, Subpart EEE 40 CFR 63, Subpart JJJ	These requirements are not applicable because the facility is not an affected source as defined in these regulations.
40 CFR 72-78	These requirements are not applicable because the facility is not an affected source as defined by the acid rain regulations.
40 CFR 68 40 CFR 82	These requirements are not applicable because the facility is not an affected source as defined in these regulations.

### B. EMISSION UNITS

ConocoPhillips did not request a shield for specific emission units; therefore, a permit shield will not be granted to individual emission units.

## V GENERAL PERMIT CONDITIONS

### A. Compliance Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.
4. The permittee shall furnish to the Department, within a reasonable time set by the Department (not to be less than 15 days), any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.
5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.
6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

### B. Certification Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
2. Compliance certifications shall be submitted by January 31 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).

3. Compliance certifications shall include the following:
  - a. The identification of each term or condition of the permit that is the basis of the certification;
  - b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term or condition during the certification period, and whether such methods or other means provide continuous or intermittent data, as well as the additional information required by ARM 17.8.1213(7)(c)(ii);
  - c. The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in ARM 17.8.1213(7)(c)(ii), as well as the additional information required by ARM 17.8.1213(7)(c)(iii); and
  - d. Such other facts as the Department may require to determine the compliance status of the source.
4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix of this permit.

**C. Permit Shield**

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.
2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.
3. Nothing in this permit alters or affects the following:
  - a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section.
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.
  - c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA.
  - d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA.
  - e. The ability of the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA.
  - f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA.



3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses Appendix of this permit, reports of any required monitoring by January 31 and July 31 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on January 31 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on July 31 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

**E. Prompt Deviation Reporting**

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(c)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported as part of the routine reporting requirements under ARM 17.8.1212(3)(b) and, if applicable, in accordance with the malfunction reporting requirements under ARM 17.8.110, unless otherwise specified in an applicable requirement.

**F. Emergency Provisions**

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13) and §1214(5), (6)&(8)

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:
  - a. An emergency occurred and the permittee can identify the cause(s) of the emergency.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit.
  - d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(c). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

**G. Inspection and Entry**

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of the Department or the administrator) to perform the following:
  - a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.
  - c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
  - d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements.
2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

**H. Fee Payment**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.
2. Annually, the Department shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.
3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, the Department may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or \$100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

**I. Minor Permit Modifications**

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.

2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

**J. Changes Not Requiring Permit Revision**

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:
  - a. The proposed changes do not require the permittee to obtain a Montana Air Quality permit under ARM Title 17, Chapter 8, Subchapter 7.
  - b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10.
  - c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions.
  - d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit.
  - e. The facility provides the administrator and the Department with written notification at least 7 days prior to making the proposed changes.
2. The permittee and the Department shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.
3. Pursuant to the conditions above, the permittee is authorized to make Section 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:
  - a. Each proposed change does not weaken the enforceability of any existing permit conditions.
  - b. The Department has not objected to such change.
  - c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition.
  - d. The permittee provides contemporaneous written notice to the Department and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

**K. Significant Permit Modifications**

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:
  - a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment;
  - b. Every significant change in existing permit monitoring terms or conditions;
  - c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule; or
  - d. Any other change determined by the Department to be significant.
2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.
3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

**L. Reopening for Cause**

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

This permit may be reopened and revised under the following circumstances.

1. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2).
2. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit.
3. The Department or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.
4. The administrator or the Department determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

**M. Permit Expiration and Renewal**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of 5 years.
2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.
3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.
4. For renewal, the permittee shall submit a complete air quality operating permit application to the Department not later than 6 months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, the Department may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

**N. Severability Clause**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by the Department of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.
2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

**O. Transfer or Assignment of Ownership**

ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to the Department a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.
2. The permit shield provided for in ARM17.8.1214 shall not extend to administrative permit amendments.

**P. Emissions Trading, Marketable Permits, Economic Incentives**

ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor

permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

**Q. No Property Rights Conveyed**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

**R. Testing Requirements**

ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

**S. Source Testing Protocol**

ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

**T. Malfunctions**

ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

**U. Circumvention**

ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

**V. Motor Vehicles**

ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

**W. Annual Emissions Inventory**

ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply the Department with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

**X. Open Burning**

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

**Y. Montana Air Quality Permits**

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §743, and 764 (ARM 17.8.745(1)(d), and 764(1)(b) are STATE ENFORCEABLE ONLY until approval by the EPA as part of the SIP)

1. Except as specified, no person shall construct, install, alter or use any air contaminant source or stack associated with any source without first obtaining a permit from the

Department or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).

2. The permittee shall comply with ARM 17.8.745, 770 and 764.
3. ARM 17.8.745(1)(d) specifies de minimis changes as construction or changed conditions of operation at a facility holding a Montana Air Quality permit issued under Chapter 8 that does not increase the facility's potential to emit by more than 15 tons per year of any pollutant, except (STATE ENFORCEABLE ONLY until approved by the EPA as part of the SIP):
  - a. Any construction or changed condition that would violate any condition in the facility's existing Montana Air Quality permit or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2).
  - b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8.
  - c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804.
  - d. Any construction or improvement project with a potential to emit more than 15 tons per year may not be artificially split into smaller projects to avoid Montana Air Quality permitting.
  - e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.
4. Any facility making a de minimis change pursuant to ARM 17.8.745(1)(d) shall notify the Department if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d). (STATE ENFORCEABLE ONLY until approval by the EPA as part of the SIP)

**Z. National Emission Standard for Asbestos**  
40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

**AA. Asbestos**  
ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq.*, and ARM 17.74.401, *et seq.* (State only)

**BB. Stratospheric Ozone Protection – Servicing of Motor Vehicle Air Conditioners**  
40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

**CC. Stratospheric Ozone Protection – Recycling and Emission Reductions**  
40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B.

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161.
4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166.
5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

**DD. Emergency Episode Plan**

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to the Department a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

**EE. Definitions**

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit, shall have the meaning assigned to them in the referenced regulations.

# APPENDICES

**APPENDIX A                      INSIGNIFICANT EMISSION UNITS**

**Disclaimer:**     The information in this appendix is not State or Federally enforceable but is presented to assist ConocoPhillips, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emission unit located within a source that: (i) has a potential to emit less than 5 tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to section 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

**List of Insignificant Activities:**

The following table of insignificant sources and/or activities was provided by ConocoPhillips. Because there are no requirements to update such a list, the emission units and/or activities may change from those specified in the table.

<b>Emission Unit ID</b>	<b>Description</b>
IEU01	Miscellaneous Emissions (tank cleaning and additive tanks emissions)

## APPENDIX B DEFINITIONS AND ABBREVIATIONS

### Definitions

"**Act**" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq.*

"**Administrative permit amendment**" means an air quality operating permit revision that:

- (a) Corrects typographical errors;
- (b) Identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source;
- (c) Requires more frequent monitoring or reporting by ConocoPhillips;
- (d) Requires changes in monitoring or reporting requirements that the Department deems to be no less stringent than current monitoring or reporting requirements;
- (e) Allows for a change in ownership or operational control of a source if the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225; or
- (f) Incorporates any other type of change that the Department has determined to be similar to those revisions set forth in (a)-(e), above.

"**Applicable requirement**" means all of the following as they apply to emission units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit).

- (a) Any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana State Implementation Plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) Any federally enforceable term, condition or other requirement of any Montana Air Quality permit issued by the Department under subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D;
- (c) Any standard or other requirement under sec. 7411 of the FCAA, including sec. 7411(d);
- (d) Any standard or other requirement under sec. 7412 of the FCAA, including any requirement concerning accident prevention under sec. 7412(r)(7), but excluding the contents of any risk management plan required under sec. 7412(r);
- (e) Any standard or other requirement of the Acid Rain Program under Title IV of the FCAA or regulations promulgated thereunder;
- (f) Any requirements established pursuant to sec. 7661c(b) or sec. 7414(a)(3) of the FCAA;
- (g) Any standard or other requirement governing solid waste incineration, under sec. 7429 of the FCAA;

- (h) Any standard or other requirement for consumer and commercial products, under sec. 7511b(e) of the FCAA;
- (i) Any standard or other requirement for tank vessels, under sec. 7511b(f) of the FCAA;
- (j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit;
- (k) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to sec. 7661c(e) of the FCAA; or
- (l) Any federally enforceable term or condition of any air quality open burning permit issued by the Department under subchapter 6.

**"Department"** means the Montana Department of Environmental Quality.

**"Emission unit"** means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under sec. 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

**"FCAA"** means the Federal Clean Air Act, as amended.

**"Federally enforceable"** means all limitations and conditions that are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana State Implementation Plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana State Implementation Plan and expressly requires adherence to any permit issued under such program.

**"Fugitive emissions"** means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

**"General air quality operating permit"** or **"general permit"** means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

**"Hazardous air pollutant"** means any air pollutant listed as a hazardous air pollutant pursuant to section 112(b) of the FCAA.

**"Non-federally enforceable requirement"** means the following as they apply to emission units in a source requiring an air quality operating permit.

- (a) Any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana State Implementation Plan approved or promulgated by the administrator through rule making under Title I of the FCAA.
- (b) Any term, condition or other requirement contained in any Montana Air Quality permit issued by the Department under subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable.
- (c) Does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter.

**"Permittee"** means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

**"Regulated air pollutant"** means the following:

- (a) Nitrogen oxides or any volatile organic compounds.
- (b) Any pollutant for which a national ambient air quality standard has been promulgated.
- (c) Any pollutant that is subject to any standard promulgated under sec. 7411 of the FCAA.
- (d) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA.
- (e) Any pollutant subject to a standard or other requirement established or promulgated under sec. 7412 of the FCAA, including but not limited to the following:
  - (i) Any pollutant subject to requirements under sec. 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in section 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in section 7412(e) of the FCAA.
  - (ii) Any pollutant for which the requirements of section 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to sec. 7412(g)(2) requirement.

**"Responsible official"** means one of the following:

- (a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
  - (ii) The delegation of authority to such representative is approved in advance by the Department.
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).
- (d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

**Abbreviations:**

ARM	Administrative Rules of Montana
ASTM	American Society of Testing Materials
BACT	Best Available Control Technology
BDT	bone dry tons
Btu	British Thermal Unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
DOT	Department of Transportation
dscf	dry standard cubic foot
dscfm	dry standard cubic foot per minute
EPA	U.S. Environmental Protection Agency
EPA Method	Test methods contained in 40 CFR 60, Appendix A
EU	emission unit
FCAA	Federal Clean Air Act
gr	grains
HAP	hazardous air pollutant
IEU	insignificant emission unit
MACT	maximum available control technology
Mbdft	thousand board feet
Method 5	40 CFR 60, Appendix A, Method 5
Method 9	40 CFR 60, Appendix A, Method 9
MMbdft	million board feet
MMBtu	million British Thermal Units
NO <sub>x</sub>	oxides of nitrogen
NO <sub>2</sub>	nitrogen dioxide
O <sub>2</sub>	oxygen
Pb	lead
PM	particulate matter
PM <sub>10</sub>	particulate matter less than 10 microns in size
ppm	parts per million
psi	pounds per square inch
scf	standard cubic feet
SIC	Source Industrial Classification
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
tpy	tons per year
U.S.C.	United States Code
VE	visible emissions
VOC	volatile organic compound
VOL	volatile organic liquid

## Compliance Notifications:

Montana Department of Environmental Quality  
Permitting and Compliance Division  
Air & Waste Management Bureau  
P.O. Box 200901  
Helena, MT 59620-0901

United States EPA  
Air Program Coordinator  
Region VIII, Montana Office  
10 West 15<sup>th</sup> Street, Suite 3200  
Helena, MT 59620-0901

## Permit Modifications:

Montana Department of Environmental Quality  
Permitting and Compliance Division  
Air & Waste Management Bureau  
P.O. Box 200901  
Helena, MT 59620-0901

Office of Partnerships and Regulatory Assistance  
Air and Radiation Program  
US EPA Region VIII 8P-AR  
999 18<sup>th</sup> Street, Suite 500  
Denver, CO 80202-2466

## APPENDIX D AIR QUALITY INSPECTOR INFORMATION

**Disclaimer:** The information in this appendix is not State or Federally enforceable but is presented to assist ConocoPhillips, permitting authority, inspectors, and the public.

1. **Direction to Plant:** When traveling on I-90, take the Reserve Street exit. Travel south to Lower Grant Creek Road and make a right turn. Travel south on Lower Grant Creek Road until intersecting Raser Drive, turn southeast and watch for office sign.

2. **Safety Equipment Required:**

All visitors entering the product terminal will be given a Safety Orientation upon their arrival. The safety orientation will cover the safety plan for the terminal and will include the following:

- Visitor check in procedures
- Personal protection equipment
- Emergency evacuation exit
- Emergency accountability meeting place

All visitors are required to check in at the main office when they first arrive. During check-in, visitors are required to sign in the visitors logbook. All representatives of regulatory agencies will be required to present picture identification. The facility manager will maintain a copy of the picture identification.

The safety and health of visitors entering the terminal is the responsibility of the facility manager. The personal protection prescribed by the facility manager represents the minimum protection required. The visitor maybe equipped with protection beyond that prescribed if desired.

Unless otherwise prescribed by the facility manager, personal Nomex clothing should be worn in all containment areas and areas where terminal personnel are performing maintenance on hydrocarbon-containing equipment. Some of the areas where Nomex is required include the loading rack (truck and/or rail), tank farm and pumping areas. Nomex can be supplied to visitors upon arrival if needed.

All personnel should wear a hard hat in areas where overhead work is being conducted and areas of low overhang.

Hearing protection areas are marked with appropriate signs. Protection should be worn whenever entering these areas.

Eye protection should be worn where there is a potential of hydrocarbon spills near the eye level. Eye protection will be supplied by the facility manager if needed.

In the event of an emergency requiring evacuation of the facility, a prescribed evacuation exit should be used. The facility manager will inform all visitors of such location upon their arrival on site, during the safety orientation.

To ensure all on-site personnel are accounted for following an emergency evacuation, all visitors and terminal personnel will meet at a specific, safe location following evacuation. The facility manager will inform all visitors of the specific safe location upon arrival on site, during the safety orientation.

3. **Facility Plot Plan:** A facility plot plan is on file with the Department.

**APPENDIX E                      40 CFR 60, SUBPART K**

(Code of Federal Regulations)  
(Title 40, Volume 6, Part 60)  
(Revised as of July 1, 1997)  
From the U.S. Government Printing Office via GPO Access  
(CITE: 40CFR60)

(Page 191-193)

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 60--STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--Table of Contents

Subpart K--Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978

Sec. 60.110 Applicability and designation of affected facility.

(a) Except as provided in Sec. 60.110(b), the affected facility to which this subpart applies is each storage vessel for petroleum liquids that has a storage capacity greater than 151,412 liters (40,000 gallons).

(b) This subpart does not apply to storage vessels for petroleum or condensate stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

(c) Subject to the requirements of this subpart is any facility under paragraph (a) of this section which:

(1) Has a capacity greater than 151,416 liters (40,000 gallons), but not exceeding 246,052 liters (65,000 gallons), and commences construction or modification after March 8, 1974, and prior to May 19, 1978.

(2) Has a capacity greater than 246,052 liters (65,000 gallons) and commences construction or modification after June 11, 1973, and prior to May 19, 1978.

(42 FR 37937, July 25, 1977, as amended at 45 FR 23379, Apr. 4, 1980)

Sec. 60.111 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Storage vessel means any tank, reservoir, or container used for the storage of petroleum liquids, but does not include:

(1) Pressure vessels that are designed to operate in excess of 15 pounds per square inch gauge without emissions to the atmosphere except under emergency conditions,

(2) Subsurface caverns or porous rock reservoirs, or

(3) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.

(b) Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Nos. 2 through 6 fuel oils as specified in ASTM D396-78, gas turbine fuel oils Nos. 2-GT through 4-GT as specified in ASTM D2880-78, or diesel fuel oils Nos. 2-D and 4-D as specified in ASTM D975-78. (These three methods are incorporated by reference--see Sec. 60.17.)

(c) Petroleum refinery means each facility engaged in producing **gasoline**, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking, extracting, or reforming of unfinished petroleum derivatives.

(d) Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(e) Hydrocarbon means any organic compound consisting predominantly of carbon and hydrogen.

(f) Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

(g) Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(h) Drilling and production facility means all drilling and servicing equipment, wells, flow lines, separators, equipment, gathering lines, and auxiliary non-transportation-related equipment used in the production of petroleum but does not include natural gasoline plants.

(i) True vapor pressure means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from External Floating-Roof Tanks, Second Edition, February 1980 (incorporated by reference--see Sec. 60.17).

(j) Floating roof means a storage vessel cover consisting of a double deck, pontoon single deck, internal floating cover or covered floating roof, which rests upon and is supported by the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank wall.

(k) Vapor recovery system means a vapor gathering system capable of collecting all hydrocarbon vapors and gases discharged from the storage vessel and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere.

(l) Reid vapor pressure is the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D323-82 (incorporated by reference--see Sec. 60.17).

(39 FR 9317, Mar. 8, 1974; 39 FR 13776, Apr. 17, 1974, as amended at 39 FR 20794, June 14, 1974; 45 FR 23379, Apr. 4, 1980; 48 FR 3737, Jan. 27, 1983; 52 FR 11429, Apr. 8, 1987)

#### Sec. 60.112 Standard for volatile organic compounds (VOC).

(a) The owner or operator of any storage vessel to which this subpart applies shall store petroleum liquids as follows:

(1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents.

(2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent.

(39 FR 9317, Mar. 8, 1974; 39 FR 13776, Apr. 17, 1974, as amended at 45 FR 23379, Apr. 4, 1980)

#### Sec. 60.113 Monitoring of operations.

(a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

(b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests

that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).

(d) The following are exempt from the requirements of this section:

(1) Each owner or operator of each affected facility which stores petroleum liquids with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).

(2) Each owner or operator of each affected facility equipped with a vapor recovery and return or disposal system in accordance with the requirements of Sec. 60.112.

(45 FR 23379, Apr. 4, 1980)

(Code of Federal Regulations)  
(Title 40, Volume 6, Part 60)  
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TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 60--STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--Table of Contents

Subpart Kb--Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commence after July 23, 1984

Source: 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

Sec. 60.110b Applicability and designation of affected facility.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 40 cubic meters ( $m^3$ ) that is used to store volatile organic liquids (VOL's) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) Except as specified in paragraphs (a) and (b) of Sec. 60.116b, storage vessels with design capacity less than  $75 m^3$  are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.

(c) Except as specified in paragraphs (a) and (b) of Sec. 60.116b, vessels either with a capacity greater than or equal to  $151 m^3$  storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to  $75 m^3$  but less than  $151 m^3$  storing a liquid with a maximum true vapor pressure less than 15.0 kPa are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.

(d) This subpart does not apply to the following:

- (1) Vessels at coke oven by-product plants.
- (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to  $1,589.874 m^3$  used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- (5) Vessels located at bulk gasoline plants.
- (6) Storage vessels located at gasoline service stations.
- (7) Vessels used to store beverage alcohol.

(52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989)  
Sec. 60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

- (a) Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.
- (b) Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.
- (c) Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.
- (d) Fill means the introduction of VOL into a storage vessel but not necessarily to complete capacity.
- (e) Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.
- (f) Maximum true vapor pressure means the equilibrium partial pressure exerted by the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:
  - (1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference--see Sec. 60.17); or
  - (2) As obtained from standard reference texts; or
  - (3) As determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17);
  - (4) Any other method approved by the Administrator.
- (g) Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323-82 (incorporated by reference--see Sec. 60.17).
- (h) Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.
- (i) Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.
- (j) Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:
  - (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors; or
  - (2) Subsurface caverns or porous rock reservoirs.
- (k) Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds into the atmosphere except those VOL's that emit only those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone. These compounds are identified in EPA statements on ozone abatement policy for SIP revisions (42 FR 35314, 44 FR 32042, 45 FR 32424, and 45 FR 48941).
- (l) Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.  
(52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989)

#### Sec. 60.112b Standard for volatile organic compounds (VOC).

- (a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75

m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in Sec. 60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in Sec. 60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, Sec. 60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (Sec. 60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1),(a)(2), or (a)(3) of this section as provided in Sec. 60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m<sup>3</sup> which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in Sec. 60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in Sec. 60.114b of this subpart.

#### Sec. 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in Sec. 60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of Sec. 60.112b.

(a) After installing the control equipment required to meet Sec. 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in Sec. 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in Sec. 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet Sec. 60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage

vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph(b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of Sec. 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in Sec. 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that the Administrator receives it at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in Sec. 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from Sec. 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by Sec. 60.7(a)(1) or, if the facility is exempt from Sec. 60.7(a)(1), as an attachment to the notification required by Sec. 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 deg.C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in Sec. 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, Sec. 60.18 (e) and (f).

Sec. 60.114b Alternative means of emission limitation.

- (a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in Sec. 60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.
- (b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.
- (c) Any person seeking permission under this section shall submit to the Administrator a written application including:
  - (1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.
  - (2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.
- (d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in Sec. 60.112b.

Sec. 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in Sec. 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of Sec. 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

- (a) After installing control equipment in accordance with Sec. 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
  - (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sec. 60.112b(a)(1) and Sec. 60.113b(a)(1). This report shall be an attachment to the notification required by Sec. 60.7(a)(3).
  - (2) Keep a record of each inspection performed as required by Sec. 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
  - (3) If any of the conditions described in Sec. 60.113b(a)(2) are detected during the annual visual inspection required by Sec. 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
  - (4) After each inspection required by Sec. 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Sec. 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sec. 61.112b(a)(1) or Sec. 60.113b(a)(3) and list each repair made.
- (b) After installing control equipment in accordance with Sec. 61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.
  - (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sec. 60.112b(a)(2) and Sec. 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by Sec. 60.7(a)(3).

- (2) Within 60 days of performing the seal gap measurements required by Sec. 60.113b(b)(1), furnish the Administrator with a report that contains:
    - (i) The date of measurement.
    - (ii) The raw data obtained in the measurement.
    - (iii) The calculations described in Sec. 60.113b (b)(2) and (b)(3).
  - (3) Keep a record of each gap measurement performed as required by Sec. 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:
    - (i) The date of measurement.
    - (ii) The raw data obtained in the measurement.
    - (iii) The calculations described in Sec. 60.113b (b)(2) and (b)(3).
  - (4) After each seal gap measurement that detects gaps exceeding the limitations specified by Sec. 60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.
- (c) After installing control equipment in accordance with Sec. 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.
- (1) A copy of the operating plan.
  - (2) A record of the measured values of the parameters monitored in accordance with Sec. 60.113b(c)(2).
- (d) After installing a closed vent system and flare to comply with Sec. 60.112b, the owner or operator shall meet the following requirements.
- (1) A report containing the measurements required by Sec. 60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by Sec. 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.
  - (2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.
  - (3) Semi-annual reports of all periods recorded under Sec. 60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

#### Sec. 60.116b Monitoring of operations.

- (a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
- (b) The owner or operator of each storage vessel as specified in Sec. 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m<sup>3</sup> is subject to no provision of this subpart other than those required by this paragraph.
- (c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
- (d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

- (e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.
- (1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
  - (2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
    - (i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
    - (ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
  - (3) For other liquids, the vapor pressure:
    - (i) May be obtained from standard reference texts, or
    - (ii) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or
    - (iii) Measured by an appropriate method approved by the Administrator; or
    - (iv) Calculated by an appropriate method approved by the Administrator.
- (f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
- (1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.
  - (2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in Sec. 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
    - (i) ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or
    - (ii) ASTM Method D323-82 (incorporated by reference--see Sec. 60.17); or
    - (iii) As measured by an appropriate method as approved by the Administrator.
- (g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specifications of Sec. 60.112b is exempt from the requirements of paragraphs (c) and (d) of this section.

#### Sec. 60.117b Delegation of authority.

- (a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.
- (b) Authorities which will not be delegated to States: Secs. 60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii). (52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987)

40 CFR 60 SUBPART XX

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TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 60--STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--Table of Contents

Subpart XX--Standards of Performance for **Bulk Gasoline Terminals**

Source: 48 FR 37590, Aug. 18, 1983, unless otherwise noted.

Sec. 60.500 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is the total of all the loading racks at a **bulk gasoline** terminal which deliver liquid product into **gasoline** tank trucks.

(b) Each facility under paragraph (a) of this section, the construction or modification of which is commenced after December 17, 1980, is subject to the provisions of this subpart.

(c) For purposes of this subpart, any replacement of components of an existing facility, described in paragraph (a) of this section, commenced before August 18, 1983 in order to comply with any emission standard adopted by a State or political subdivision thereof will not be considered a reconstruction under the provisions of 40 CFR 60.15.

Note: The intent of these standards is to minimize the emissions of VOC through the application of best demonstrated technologies (BDT). The numerical emission limits in this standard are expressed in terms of total organic compounds. This emission limit reflects the performance of BDT.

Sec. 60.501 Definitions.

The terms used in this subpart are defined in the Clean Air Act, in Sec. 60.2 of this part, or in this section as follows:

Bulk gasoline terminal means any gasoline facility that receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State or local law and discoverable by the Administrator and any other person.

Continuous vapor processing system means a vapor processing system that treats total organic compounds vapors collected from gasoline tank trucks on a demand basis without intermediate accumulation in a vapor holder.

Existing vapor processing system means a vapor processing system (capable of achieving emissions to the atmosphere no greater than 80 milligrams of total organic compounds per liter of gasoline loaded), the construction or refurbishment of which was commenced before December 17, 1980, and which was not constructed or refurbished after that date.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater which is used as a fuel for internal combustion engines.

Gasoline tank truck means a delivery tank truck used at bulk gasoline terminals which is loading gasoline or which has loaded gasoline on the immediately previous load.

Intermittent vapor processing system means a vapor processing system that employs an intermediate vapor holder to accumulate total organic compounds vapors collected from gasoline tank trucks, and treats the accumulated vapors only during automatically controlled cycles.

Loading rack means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill delivery tank trucks.

Refurbishment means, with reference to a vapor processing system, replacement of components of, or addition of components to, the system within any 2-year period such that the fixed capital cost of the new components required for such component replacement or addition exceeds 50 percent of the cost of a comparable entirely new system.

Total organic compounds means those compounds measured according to the procedures in Sec. 60.50.

Vapor collection system means any equipment used for containing total organic compounds vapors displaced during the loading of gasoline tank trucks.

Vapor processing system means all equipment used for recovering or oxidizing total organic compounds vapors displaced from the affected facility.

Vapor-tight gasoline tank truck means a gasoline tank truck which has demonstrated within the 12 preceding months that its product delivery tank will sustain a pressure change of not more than 750 pascals (75 mm of water) within 5 minutes after it is pressurized to 4,500 pascals (450 mm of water). This capability is to be demonstrated using the pressure test procedure specified in Reference Method 27.

#### Sec. 60.502 Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.

On and after the date on which Sec. 60.8(a) requires a performance test to be completed, the owner or operator of each bulk gasoline terminal containing an affected facility shall comply with the requirements of this section.

- (a) Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading.
- (b) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded, except as noted in paragraph (c) of this section.
- (c) For each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.
- (d) Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack.
- (e) Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures:
  - (1) The owner or operator shall obtain the vapor tightness documentation described in Sec. 60.505(b) for each gasoline tank truck which is to be loaded at the affected facility.
  - (2) The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected facility.
  - (3) The owner or operator shall cross-check each tank identification number obtained in paragraph (e)(2) of this section with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded.
  - (4) The terminal owner or operator shall notify the owner or operator of each nonvapor-tight gasoline tank truck loaded at the affected facility within 3 weeks after the loading has occurred.

(5) The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline tank truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained.

(6) Alternate procedures to those described in paragraphs (e)(1) through (5) of this section for limiting gasoline tank truck loadings may be used upon application to, and approval by, the Administrator.

(f) The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.

(g) The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.

(h) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in Sec. 60.503(d).

(i) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water).

(j) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.

(48 FR 37590, Aug. 18, 1983; 48 FR 56580, Dec. 22, 1983, as amended at 54 FR 6678, Feb. 14, 1989)

#### Sec. 60.503 Test methods and procedures.

(a) In conducting the performance tests required in Sec. 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in Sec. 60.8(b). The three-run requirement of Sec. 60.8(f) does not apply to this subpart.

(b) Immediately before the performance test required to determine compliance with Sec. 60.502 (b), (c), and (h), the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test.

(c) The owner or operator shall determine compliance with the standards in Sec. 60.502 (b) and (c) as follows:

(1) The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.

(2) If the vapor processing system is intermittent in operation, the performance test shall begin at a reference vapor holder level and shall end at the same reference point. The test shall include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system shall be manually controlled.

(3) The emission rate (E) of total organic compounds shall be computed using the following Equation:

$$E = K \sum_{i=1}^n (V_{esi} C_{ei}) / (L 10^6)$$

where:

E=emission rate of total organic compounds, mg/liter of gasoline loaded.

$V_{esi}$ =volume of air-vapor mixture exhausted at each interval "i", scm.

$C_{ei}$ =concentration of total organic compounds at each interval "i", ppm.

L=total volume of gasoline loaded, liters.

n=number of testing intervals.

i=emission testing interval of 5 minutes.

K=density of calibration gas,  $1.83 \times 10^6$  for propane and  $2.41 \times 10^6$  for butane, mg/scm.

(4) The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted ( $V_{esi}$ ) and the corresponding average total organic compounds concentration ( $C_{ei}$ ) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted.

(5) The following methods shall be used to determine the volume ( $V_{esi}$ ) air-vapor mixture exhausted at each interval:

(i) Method 2B shall be used for combustion vapor processing systems.

(ii) Method 2A shall be used for all other vapor processing systems.

(6) Method 25A or 25B shall be used for determining the total organic compounds concentration ( $C_{ei}$ ) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Administrator.

(7) To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used.

(d) The owner or operator shall determine compliance with the standard in Sec. 60.502(h) as follows:

(1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with  $\pm 2.5$  mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck.

(2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

(54 FR 6678, Feb. 14, 1989; 54 FR 21344, Feb. 14, 1989)  
Sec. 60.504 (Reserved)

Sec. 60.505 Reporting and recordkeeping.

(a) The tank truck vapor tightness documentation required under Sec. 60.502(e)(1) shall be kept on file at the terminal in a permanent form available for inspection.

(b) The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include, as a minimum, the following information:

- (1) Test title: Gasoline Delivery Tank Pressure Test--EPA Reference Method 27.
- (2) Tank owner and address.
- (3) Tank identification number.
- (4) Testing location.
- (5) Date of test.
- (6) Tester name and signature.
- (7) Witnessing inspector, if any: Name, signature, and affiliation.
- (8) Test results: Actual pressure change in 5 minutes, mm of water (average for 2 runs).

(c) A record of each monthly leak inspection required under Sec. 60.502(j) shall be kept on file at the terminal for at least 2 years. Inspection records shall include, as a minimum, the following information:

- (1) Date of inspection.
- (2) Findings (may indicate no leaks discovered; or location, nature, and severity of each leak).
- (3) Leak determination method.
- (4) Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).
- (5) Inspector name and signature.

(d) The terminal owner or operator shall keep documentation of all notifications required under Sec. 60.502(e)(4) on file at the terminal for at least 2 years.

(e) (Reserved)

(f) The owner or operator of an affected facility shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least 3 years.

(48 FR 37590, Aug. 18, 1983; 48 FR 56580, Dec. 22, 1983)

#### Sec. 60.506 Reconstruction.

For purposes of this subpart:

(a) The cost of the following frequently replaced components of the affected facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable entirely new facility" under Sec. 60.15: pump seals, loading arm gaskets and swivels, coupler gaskets, overfill sensor couplers and cables, flexible vapor hoses, and grounding cables and connectors.

(b) Under Sec. 60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in Sec. 60.506(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following December 17, 1980. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

# ATTACHMENT 1

## TEST METHODS AND COMPLIANCE PROCEDURES

1. In determining compliance with limitations in this permit, the following procedures shall be used:
  - a. Calibrate and install a pressure measurement device (liquid manometer or equivalent instrument) capable of measuring up to 500 millimeters (mm) (20 inches (in) of water) gauge pressure with  $\pm 2.5$  mm (0.10 in.) of water precision.
  - b. Connect the pressure measurement device to a pressure tap in the terminal's vapor recovery system, located as close as possible to the connection with the gasoline railcar.
  - c. During the performance test, record the pressure every 5 minutes while a gasoline railcar is being loaded, and record the highest instantaneous pressure that occurs during each loading. Every loading position shall be tested at least once during the performance test.
2. In determining compliance with the mass emission limitations in this permit, the following reference methods shall be used:
  - a. In determining volume at the flare stack, Method 2A for all other vapor control systems.
  - b. In determining total organic compounds concentration at the flare stack, Method 25A or 25B. The calibration gas shall be either propane or butane.
3. Immediately prior to a performance test required to determine compliance with this permit, all potential sources of vapor and liquid leakage from the terminal's vapor recovery system equipment shall be monitored for leaks according to the procedures in Attachment 2 to this permit. The monitoring shall be conducted only while a gasoline tank truck or railcar is being loaded. A reading of 10,000 parts per million by volume (ppmv) or greater as methane shall be considered a leak. All leaks shall be repaired prior to conducting the performance test.
4. The test procedure for determining compliance with this permit is as follows:
  - a. All testing equipment shall be prepared and installed as specified in the appropriate test methods.
  - b. The time period for a performance test shall be not less than 6 hours, during which at least 300,000 L (80,000 gal) of gasoline are loaded. If the throughput criterion is not met during the initial 6 hours, the test may be continued until the throughput criterion is met, or resumed the next day with another complete 6 hours of testing. As much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.
  - c. For intermittent vapor control systems:
    - i. The vapor holder level shall be recorded at the start of the performance test. The end of the performance test shall coincide with a time when the vapor holder is at its original level.
    - ii. At least two startups and shutdowns of the vapor processor shall occur during the performance test. If this does not occur under automatically controlled operations, the system shall be manually controlled.
  - d. The volume of gasoline dispensed during the performance test period at all loading racks where vapor emissions are controlled by the vapor processing system being tested shall be determined. This volume may be determined from terminal records or from gasoline dispensing meters at each loading rack.

- e. An emission testing interval shall consist of a 5-minute period during the performance test. For each interval:
  - i. The reading from each measurement instrument shall be recorded.
  - ii. The volume exhausted and the average total organic compounds concentration in the flare stack shall be determined, as specified in the appropriate test method. The average total organic compounds concentration shall correspond to the volume measurement by taking into account the sampling system response time.
- f. The mass emitted during each testing interval shall be calculated as follows:

$$M_{ei} = 10^{-6} KV_{es}C_e$$

Where:

- $M_{ei}$  = Mass of total organic compounds (milligrams (mg)) emitted during testing interval *i*.
- $V_{es}$  = Volume of air-vapor mixture exhausted (cubic meters (m<sup>3</sup>)), at standard conditions.
- $C_e$  = Total organic compounds concentration (measure as carbon) at the exhaust vent (ppmv).
- $K$  = Density of calibration gas (milligrams/cubic meter (mg/m<sup>3</sup>)) at standard conditions (1.83x10<sup>6</sup> for propane; 2.41x10<sup>6</sup> for butane).
- $s$  = Standard conditions, 20°C and 760 millimeters of mercury (mmHg).

- g. The total organic compounds mass emissions shall be calibrated as follows:

$$E = \frac{\sum_{i=1}^n M_{ei}}{L}$$

Where:

- $E$  = Mass of total organic compounds emitted per volume of gasoline loaded, mg/L.
- $L$  = Total volume of gasoline loaded, L.
- $n$  = number of testing intervals.

- 5. Alternate test methods may be used for determining compliance only after approval from the Department.

**ATTACHMENT 2**

**LEAK DETECTION METHODS FOR VOLATILE ORGANIC COMPOUNDS (VOC'S)**

1. Each calendar month, sight, sound, or smell testing shall be conducted on areas of each vapor collection system capable of potential leaks. Each detection of a leak shall be recorded and the leak repaired within 15 days after the leak is detected.
2. Alternate test methods may be used for determining compliance only after approval from the Department.